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July 14, 2023

-VIA ELECTRONIC FILING-

Adam Teitzman Commission Clerk Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

RE: Docket No. 20230000-OT

Florida Power & Light Company's 2023-2032 Ten Year Power Plant Site Plan

Dear Mr. Teitzman:

Please find attached Florida Power & Light Company's responses to Staff's Third Data Request, Nos. 1-20.

If there are any questions regarding this transmittal, please contact me at (561) 304-5662.

Sincerely,

/s/ William P. Cox William P. Cox Senior Counsel Fla. Bar No. 00093531

WPC:ec Enclosures

cc: Philip Ellis, Division of Engineering (via electronic mail <u>pellis@psc.state.fl.us</u>)
Greg Davis, Division of Engineering (via electronic mail <u>gdavis@psc.state.fl.us</u>)

Florida Power & Light Company

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QUESTION:

What difficulties does FPL foresee in its proposed plan to add 2,235 MW of solar annually beginning in 2026? Please identify and discuss each area of concern.

RESPONSE:

FPL considers the effects of implementing its proposed plan to add 2,235 MW of solar annually from several different perspectives covering the lifecycle of its solar projects, including resource planning, development, power generation, and power delivery. Each of these perspectives is discussed below.

Resource Planning

FPL's main consideration in factoring large amounts of solar into its resource planning process is ensuring that the firm contribution of solar is accurately projected in reserve margin analyses. The process used to determine the firm capacity value of solar is described in the FPL 2023 Ten Year Site Plan (TYSP) on page 140 and is also described further in the responses to Staff's First Data Request, No. 58 and Staff's Third Data Request, No. 3.

FPL's resource planning process also incorporates input from the other perspectives provided in this response. These perspectives are applied to FPL's resource planning principles to ensure that the effects of solar on FPL's system are properly considered.

Development

<u>Federal Tax Policy</u>: The passage of the Inflation Reduction Act by Congress in the summer of 2022 resulted in the creation and availability of a production tax credit (PTC) for solar energy centers, such as the solar facilities proposed by FPL. This PTC provides considerable benefit to FPL customers by reducing the revenue requirement for each solar energy center. A change in Federal tax policy resulting in the repeal of the solar PTC would likely reduce the amount of solar selected in FPL's future resource planning efforts.

<u>Land Availability</u>: Supporting the solar build forecasted in the 2023 TYSP requires sufficient property, and for the past several years, FPL has been working diligently to obtain a suitable property portfolio at the lowest cost to support the solar build identified in its TYSP. During FPL's most recent base rate proceeding, the company provided information on the amount of property held for future use. Since that proceeding, FPL has continued to add suitable property to the solar portfolio to offset the reduction in the portfolio as sites are used to build new solar energy centers. As of the date of this response, FPL's portfolio is sufficient for a cumulative total of approximately 21 GW, which is adequate to support the proposed solar build in the 2023 TYSP through 2030.

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<u>Stakeholder Support</u>: To date, FPL has enjoyed the support of the stakeholders and elected officials in the counties hosting its solar energy centers. Local stakeholders recognize the benefits of building solar energy centers given the construction jobs and ongoing property tax revenues added to local tax rolls. Maintaining this high level of positive engagement and support is a critical consideration in future solar permitting and construction efforts, and FPL intends to ensure these relationships remain constructive and permitting efforts remain on track.

<u>Contractor and Labor Availability</u>: FPL is working to develop long-term partnerships with qualified contractors and equipment suppliers to ensure that adequate material and construction labor is available to support the proposed solar build. These partners are pursuing job training programs across Florida to develop and grow the pool of qualified labor.

Power Generation

As of June 30, 2023, FPL now operates sixty-six (66) solar energy centers and is continuing one of the largest solar expansions in the United States. FPL is continuously evaluating changes to the combined cycle fleet in order to maximize operational flexibility. FPL will continue to operate and maintain its solar fleet and other generating assets to maximize operational flexibility and deliver the best value proposition possible for FPL customers.

Power Delivery

FPL will continue making investments in transmission and other power delivery infrastructure to efficiently and reliably operate the grid with the increased solar capacity. Due to land availability, much of this new solar capacity will be located outside of FPL's load pocket in South Florida (Miami-Dade, Broward, and Palm Beach counties). As a result, FPL will need to invest in new transmission facilities to get the power generated from these solar facilities to where it is needed and thereby continue to operate the grid reliably and meet our customers' expectations and service needs. FPL will be required to obtain necessary regulatory permits from state and other regulatory agencies for these proposed solar facilities and associated transmission assets, which may include transmission facilities that require approval under the Florida Transmission Line Siting Act.

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QUESTION:

For each of its existing and proposed solar facilities, identify which have already received approval by the Commission, and by what method; such as, through Environmental Clause recovery, inclusion in base rates as part of a base rate case, the SolarTogether Program or its extension, or the Solar Base Rate Adjustments. As part of your response, provide a table by year identifying which facilities or capacity is associated with each approval, as well as any remaining unapproved capacity.

RESPONSE:

Please see Attachment No. 1 to this response.

Florida Power & Light Company **Docket No. 20230000-OT** Ten-Year Site Plan **Staff's Third Data Request** Request No. 2 Attachment No. 1 of 1 Tab 1 of 1

	Solar Energy Center	County	Nameplate MW	Туре	Cost Recovery Mechanism	Approval Year*	COD
1	DeSoto	DeSoto	25	Tracking	ECRC	2008	Oct-09
2	Space Coast	Brevard	10	Fixed	ECRC	2008	Apr-10
3	Manatee	Manatee	74.5	Fixed	Base Rates	2016	Dec-16
4	Citrus	Desoto	74.5	Fixed	Base Rates	2016	Dec-16
5	Babcock Ranch	Charlotte	74.5	Fixed	Base Rates	2016	Dec-16
6	Horizon	Alachua/Putnam	74.5	Fixed	SoBRA	2018	Jan-18
7	Coral Farms	Putnam	74.5	Fixed	SoBRA	2018	Jan-18
8	Wildflower	DeSoto	74.5	Fixed	SoBRA	2018	Jan-18
9	Indian River	Indian River	74.5	Fixed	SoBRA	2018	Jan-18
10	Blue Cypress	Indian River	74.5	Fixed	SoBRA	2018	Mar-1
11	Barefoot Bay	Brevard	74.5	Fixed	SoBRA	2018	Mar-18
12	Hammock	Hendry	74.5	Fixed	SoBRA	2018	Mar-18
13	Loggerhead	St. Lucie	74.5	Fixed	SoBRA	2018	Mar-18
14	Miami-Dade	Miami-Dade	74.5	Fixed	SoBRA	2018	Jan-19
15	Interstate	St. Lucie	74.5	Fixed	SoBRA	2018	Jan-19
16	Sunshine Gateway	Columbia	74.5	Fixed	SoBRA	2018	Jan-19
17	Pioneer Trail	Volusia	74.5	Fixed	SoBRA	2018	Jan-19
18	Sweetbay	Martin	74.5	Fixed	Solar Together	2020	Jan-20
19	Northern Preserve	Baker	74.5	Fixed	Solar Together	2020	Jan-20
20	Cattle Ranch	DeSoto	74.5	Tracking	Solar Together	2020	Jan-20
21	Twin Lakes		74.5		Solar Together	2020	
		Putnam		Tracking	- U		Jan-20
22	Blue Heron	Hendry	74.5	Fixed	Solar Together	2020	Jan-20
23	Babcock Preserve	Charlotte	74.5	Fixed	Solar Together	2020	Jan-20
24	Hibiscus	Palm Beach	74.5	Fixed	SoBRA	2019	Apr-20
25	Okeechobee	Okeechobee	74.5	Fixed	SoBRA	2019	Apr-20
26	Southfork	Manatee	74.5	Tracking	SoBRA	2019	Apr-20
27	Echo River	Suwannee	74.5	Tracking	SoBRA	2019	Apr-20
28	Blue Indigo	Jackson	74.5	Tracking	Base Rates	2021	Apr-20
29	Lakeside	Okeechobee	74.5	Fixed	Solar Together	2020	Dec-2
30	Trailside	St. Johns	74.5	Tracking	Solar Together	2020	Dec-2
31	Union Springs	Union	74.5	Tracking	Solar Together	2020	Dec-2
32	Egret	Baker	74.5	Tracking	Solar Together	2020	Dec-2
33	Nassau	Nassau	74.5	Tracking	Solar Together	2020	Dec-20
34	Magnolia Springs	Clay	74.5	Tracking	Solar Together	2020	Mar-2
35	Pelican	St. Lucie	74.5	Fixed	Solar Together	2020	Mar-2
36	Palm Bay	Brevard	74.5	Fixed	Solar Together	2020	Mar-2
37	Rodeo	DeSoto	74.5	Tracking	Solar Together	2020	Mar-2
38	Sabal Palm	Palm Beach	74.5	Fixed	Solar Together	2020	Apr-21
39	Willow	Manatee	74.5	Tracking	Solar Together	2020	May-2
40	Discovery	Brevard	74.5	Fixed	Solar Together	2020	May-2
41	Orange Blossom	Indian River	74.5	Fixed	Solar Together	2020	May-2
42	Fort Drum	Okeechobee	74.5	Fixed	Solar Together	2020	Jun-2
43	Blue Springs	Jackson	74.5	Tracking	Base Rates	2021	Dec-2
44	Cotton Creek	Escambia	74.5	Fixed	Base Rates	2021	Dec-2
45	Ghost Orchid	Hendry	74.5	Fixed	Base Rates	2021	Jan-22
46	Sawgrass	Hendry	74.5	Fixed	Base Rates	2021	Jan-2
47	Sundew	St. Lucie	74.5	Fixed	Base Rates	2021	Jan-2
48	Elder Branch	Manatee	74.5	Tracking	Base Rates	2021	Jan-2
40 49	Grove	Indian River	74.5	Fixed	Base Rates	2021	Jan-2
49 50	Immokalee	Collier	74.5	Fixed	Base Rates	2021	
_							Jan-2
51	Everglades	Miami-Dade	74.5	Fixed	Base Rates	2021	Jan-2
52	Pink Trail	St Lucie	74.5	Fixed	Base Rates	2021	Jan-2
53	Bluefield Preserve	St. Lucie	74.5	Fixed	Base Rates	2021	Jan-2
54	Cavendish	Okeechobee	74.5	Tracking	Base Rates	2021	Jan-2
55	Anhinga	Clay	74.5	Tracking	Base Rates	2021	Jan-2
56	Blackwater River	Santa Rosa	74.5	Fixed	Base Rates	2021	Jan-2
57	Chipola River	Calhoun	74.5	Tracking	Base Rates	2021	Jan-2

List of FPL Solar Facilities (Existing and Projected)

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58	Flowers Creek	Calhoun	74.5	Tracking	Base Rates	2021	Jan-23
59	First City	Escambia	74.5	Fixed	Base Rates	2021	Jan-23
60	Apalachee	Jackson	74.5	Tracking	Base Rates	2021	Jan-23
61	Wild Azalea	Gadsden	74.5	Tracking	Solar Together Extension	2021	Feb-23
62	Chautauqua	Walton	74.5	Tracking	Solar Together Extension	2021	Feb-23
63	Shirer Branch	Calhoun	74.5	Tracking	Solar Together Extension	2021	Feb-23
64	Saw Palmetto	Bay	74.5	Tracking	Solar Together Extension	2021	Apr-23
65	Cypress Pond	Washington	74.5	Tracking	Solar Together Extension	2021	Apr-23
66	Etonia Creek	Putnam	74.5	Tracking	Solar Together Extension	2021	Jun-23
67	Terrill Creek	Clay	74.5	Tracking	SoBRA	Pending	2024
68	Silver Palm	Palm Beach	74.5	Tracking	SoBRA	Pending	2024
69	Ibis	Brevard	74.5	Tracking	SoBRA	Pending	2024
70	Orchard	St Lucie / Indian River	74.5	Tracking	SoBRA	Pending	2024
71	Beautyberry	Hendry	74.5	Tracking	SoBRA	Pending	2024
72	Turnpike	Indian River	74.5	Tracking	SoBRA	Pending	2024
73	Monarch	Martin	74.5	Tracking	SoBRA	Pending	2024
74	Caloosahatchee	Hendry	74.5	Tracking	SoBRA	Pending	2024
75	White Tail	Martin	74.5	Tracking	SoBRA	Pending	2024
76	Prairie Creek	DeSoto	74.5	Tracking	SoBRA	Pending	2024
77	Pineapple	St Lucie	74.5	Tracking	SoBRA	Pending	2024
78	Canoe	Okaloosa	74.5	Tracking	SoBRA	Pending	2024
79	Sparkleberry	Escambia	74.5	Tracking	Solar Together Extension	2021	2024
80	Sambucus	Manatee	74.5	Tracking	Solar Together Extension	2021	2024
81	Three Creeks	Manatee	74.5	Tracking	Solar Together Extension	2021	2024
82	Fourmile Creek	Calhoun	74.5	Tracking	Solar Together Extension	2021	2024
83	Big Juniper Creek	Santa Rosa	74.5	Tracking	Solar Together Extension	2021	2024
84	Pecan Tree	Walton	74.5	Tracking	Solar Together Extension	2021	2024
85	Wild Quail	Walton	74.5	Tracking	Solar Together Extension	2021	2024
86	Hawthorne Creek	DeSoto	74.5	Tracking	Solar Together Extension	2021	2024
87	Nature Trail	Baker	74.5	Tracking	Solar Together Extension	2021	2024
88	Woodyard	Hendry	74.5	Tracking	Solar Together Extension	2021	2024
89	Honeybell	Okeechobee	74.5	Tracking	Solar Together Extension	2021	2025
90	Buttonwood	St Lucie	74.5	Tracking	Solar Together Extension	2021	2025
91	Mitchell Creek	Escambia	74.5	Tracking	Solar Together Extension	2021	2025
92	Hendry Isles	Hendry	74.5	Tracking	Solar Together Extension	2021	2025
93	Norton Creek	Madison	74.5	Tracking	Solar Together Extension	2021	2025
94	Kayak	Okaloosa	74.5	Tracking	Solar Together Extension	2021	2025
95	Georges Lake	Putnam	74.5	Tracking	Solar Together Extension	2021	2025
96	Cedar Trail	Baker	74.5	Tracking	Solar Together Extension	2021	2025
97	Holopaw	Palm Beach	74.5	Tracking	SoBRA	Pending	2025
98	Speckled Perch	Okeechobee	74.5	Tracking	SoBRA	Pending	2025
99	Big Water	Okeechobee	74.5	Tracking	SoBRA	Pending	2025
100	Fawn	Martin	74.5	Tracking	SoBRA	Pending	2025
101	Hog Bay	DeSoto	74.5	Tracking	SoBRA	Pending	2025
102	Green Pasture	Charlotte	74.5	Tracking	SoBRA	Pending	2025
103	Thomas Creek	Nassau	74.5	Tracking	SoBRA	Pending	2025
103	Fox Trail	Brevard	74.5	Tracking	SoBRA	Pending	2025
105	Long Creek	Manatee	74.5	Tracking	SoBRA	Pending	2025
106	Swallowtail	Walton	74.5	Tracking	SoBRA	Pending	2025
107	Tenmile Creek	Calhoun	74.5	Tracking	SoBRA	Pending	2025
108	Redlands	Miami-Dade	74.5	Fixed	SoBRA	Pending	2025
		the issuance date of the			335.01	i onding	

^{*}Approval Year is based on the issuance date of the Commission's Final Order

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QUESTION:

Please refer to FPL's 2023 TYSP, page 142. Describe in detail the methodology FPL uses to determine the firm capacity contribution of its solar facilities. As part of this discussion, please explain whether FPL's existing and/or future solar facilities shifts the hour of system peak demand for reliability planning purposes net of solar generation.

- a. Provide an example hourly contribution of FPL's generating units compared to the system demand for a typical seasonal peak day for each season (Summer and Winter). As part of this response, provide the typical hourly demand and contribution of solar, batteries, nuclear, natural gas, and all other generation/purchases or sales.
- b. For its projected resource plan, did FPL consider constructing any solar facilities that are co-located with other uses such as parking areas, waterways, or building rooftops? If not, explain why not. If so, explain whether the analysis selected any solar facilities of this type.

RESPONSE:

Please see FPL's response to Staff's First Data Request, No. 58 for a detailed explanation of FPL's process used to determine the firm capacity contribution of its solar facilities.

FPL's calculation of the firm contribution of solar capacity relies on the concept of "net system peak," which takes FPL's load shape, subtracts the projected impacts of all solar on FPL's system, and produces the remaining amount of load to serve from FPL's other resources. As more solar is added to FPL's system, this net system peak shifts further into the evening hours where there is less sunlight.

- a. Please see Attachment No. 1 to this response for the projected hourly dispatch for the summer and winter peak days in 2024.
- b. For the projected resource plan, FPL considered all options for solar with a focus on identifying the most cost-effective solution. Thus, while constructing solar facilities that are co-located with other uses was considered, the installed cost for building these smaller sites is more expensive on a per kW basis and therefore not cost-effective as compared to universal scale solar energy centers. In addition, the ability to optimize rooftop installations is limited as compared to universal scale solar energy centers (*i.e.*, unable to use tracker systems on roofs, less room to optimize size, etc.), thus impacting the overall cost-effectiveness in the current state as compared to universal scale solar.

Florida Power & Light Company Docket No. 20230000-OT Ten-Year Site Plan Staff's Third Data Request Request No. 3 Attachment No. 1 of 1 Tab 1 of 1

Staff's Third Data Request - No. 3.a. - Hourly dispatch for Summer and Winter Peak

Summer Peak: 8/6/2024		Nuclear Generation	Natural Gas-Fired Generation	Coal Generation	Light Oil Generation	Heavy Oil Generation	Battery Discharge	Battery Charging	Solar Generation	Conservation	Purchases/Other
		(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)
Hour	Total Load	Nuclear	Natural Gas	Coal Dispatch	FO2 Dispatch	FO6 Dispatch	Battery Discharge	Battery Charge	Solar	Conservation	Purchases/Othe
1	15,520	3,502	11,713	-	1	-	-	1	-	20	285
2	14,500	3,502	10,697	-	-	-	-	-	-	20	281
3	13,799	3,502	9,998	-	-	-	-	-	-	20	278
4	13,312	3,502	10,053	-	-	-	-	(542)	-	20	279
ţ	13,122	3,502	9,860	-	-	-	-	(542)	-	20	281
(13,423	3,502	9,907	-	-	-	-	(271)	-	20	265
7	14,118	3,502	10,332	-	-	-	-	-	2	20	262
8	14,804	3,502	10,685	-	-	-	-	-	346	20	250
g	16,344	3,502	10,630	-	-	-	-	-	1,979	20	212
10	18,252	3,502	11,049	-	-	-	-	-	3,486	20	195
11	20,918	3,502	12,865	-	-	-	-	-	4,344	20	187
12	23,241	3,502	14,674	-	-	-	-	-	4,861	20	183
13	25,137	3,502	16,363	-	-	-	-	-	5,064	20	187
14	26,419	3,502	17,747	-	-	-	-	1	4,953	20	195
15	27,214	3,502	18,830	-	-	-	-	-	4,668	20	193
16	27,837	3,502	19,934	-	-	-	-	-	4,181	20	199
17	27,991	3,502	20,525	-	1	-	230	1	3,502	20	212
18	27,455	3,502	20,702	-	-	-	363	-	2,652	20	215
19	26,301	3,502	20,711	-	-	-	196		1,645	20	226
20	24,655	3,502	20,152	-	-	-	326		420	20	234
21	23,759	3,502	19,924	-	-	-	57	-	6	20	249
22	22,123	3,502	18,377	-	-	-	-	(49)	-	20	272
23	19,834	3,502	15,987	-	-	-	43	-	-	20	282
24	17,785	3,502	13,979	-	-	-	-	-	-	20	284

Winter Peak: 1/23/2024		Nuclear Generation	Natural Gas-Fired Generation	Coal Generation	Light Oil Generation	Heavy Oil Generation	Battery Discharge	Battery Charging	Solar Generation	Conservation	Purchases/Other
		(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)
Hour	Total Load	Nuclear	Natural Gas	Coal Dispatch	FO2 Dispatch	FO6 Dispatch	Battery Discharge	Battery Charge	Solar	Conservation	Purchases/Other
1	14,186	3,588	10,485	215	-	ı	-	(380)	1	17	261
2	14,068	3,588	10,220	215	-	1	-	(232)	-	17	261
3	14,224	3,588	10,682	215	-	-	-	(540)	-	17	262
4	14,568	3,588	10,682	215	-	-	-	(191)	-	17	258
5	15,467	3,588	11,384	215	-	ı			1	17	264
6	17,705	3,588	13,326	215	-	1	290	1	-	17	270
7	21,374	3,588	17,031	215	-	-	253	-	-	17	271
8	22,942	3,588	18,333	215	-	-	469	-	63	17	258
9	21,808	3,588	16,921	215	-	-	-	-	810	17	258
10	20,038	3,588	14,231	215	-	-	-	(105)	1,740	17	247
11	18,418	3,588	11,524	215	-	-	252	-	2,588	17	235
12	16,679	3,588	9,593	215	-	-	-	-	3,038	17	229
13	15,224	3,588	7,990	215	-	-	-	-	3,192	17	223
14	14,145	3,588	7,249	215	-	-	-	(321)	2,856	17	220
15	13,612	3,588	7,076	215	-	-	-	(493)	2,504	17	213
16	13,360	3,588	7,219	215	-	-	-	(542)	2,111	17	211
17	13,423	3,588	7,515	215	-	-	-	-	1,877	17	211
18	14,149	3,588	9,487	215	-	-	-	-	623	17	220
19	16,243	3,588	11,797	215	-	-	329	-	66	17	232
20	16,613	3,588	12,088	215	-	-	469	-	0	17	236
21	16,223	3,588	11,779	215	-	-	374	-	-	17	250
22	15,174	3,588	11,091	215	-	-	-	-	-	17	264
23	13,825	3,588	9,739	215	-	-	-	-	-	17	267
24	12,772	3,588	8,694	215	-	ı			-	17	259

Florida Power & Light Company Docket No. 20230000-OT Ten-Year Site Plan Staff's Third Data Request Request No. 4 Page 1 of 1

QUESTION:

Please refer to FPL's 2023 TYSP, Executive Summary section II(i) on page 9. Verify that the 75 MW Solar Thermal Unit located at the Martin plant was retired in the 1st Quarter of 2023. If this unit was retired, why was it not reflected in the Schedule 8 report?

RESPONSE:

The 75 MW Solar Thermal unit located adjacent to the Martin 8 Combined Cycle unit was retired in the 1st Quarter of 2023. This retirement was not shown on Schedule 8 because Schedule 8 tracks the retirement of firm capacity, for both summer and winter. This Solar Thermal unit did not provide additional firm capacity, but rather displaced natural gas usage to produce steam on the system while the solar thermal was operating (see FPL 2023 Ten Year Site Plan at p. 140). This displacement of natural gas was accomplished by using solar to heat a fluid and produce steam. This steam was then used in the Martin 8 Combined Cycle unit.

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QUESTION:

Refer to FPL's responses to Staff's First Data Request, No. 19(b). Please explain why commercial solar installations are anticipated to be lower than residential installations. As part of this explanation, discuss what challenges exist with commercial installations over residential ones, and what efforts, if any, FPL has made to address them.

RESPONSE:

In general, commercial solar installations are lower than residential installations across the country. FPL utilizes a third-party (Wood Mackenzie) to provide the rooftop solar adoption curve utilized within its load forecast. FPL continues to focus on increased commercial solar participation through: (1) the opportunity to participate in FPL's SolarTogether community solar program. All commercial customers are eligible for SolarTogether, regardless of whether they own their roof. Participants in the program can achieve their sustainability goals and achieve bill savings over time; and (2) FPL's Solar Power Facilities Tariff which offers a new tariff for commercial customers that are interested in installing solar.

¹ Source: Wood Mackenzie US Solar Market Insights (SMI) 2022 Year in Review

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QUESTION:

Refer to FPL's responses to Staff's First Data Request, No. 43 and specifically the notes at the bottom of the table. The notes indicated that Manatee Unit 1 and Unit 2 are planned for retirement in 2026. The TYSP Schedule 1 list these units as extreme weather winter peaking only with 0 MW capacity. Please explain why these units are not identified in Schedule 8 as a planned retirement facility in 2026.

RESPONSE:

Please note that the 2026 retirement date for Manatee Unit 1 and Unit 2 listed in FPL's response to Staff's First Data Request, No. 43 is a preliminary estimate and is subject to change.

Manatee Units 1 and 2 are not shown in Schedule 8 because Schedule 8 only registers changes in firm capacity for normal summer peak and normal winter peak operations. For normal summer and winter peak operations, Manatee Units 1 and 2 are not projected to provide firm capacity; they are only projected to provide capacity in the event of an extreme winter scenario.

Florida Power & Light Company Docket No. 20230000-OT Ten-Year Site Plan Staff's Third Data Request Request No. 7 Page 1 of 2

QUESTION:

Please refer to FPL's 2023, 2022 and 2021 TYSPs, Schedules 2.2 and 2.3, for the questions below.

a. As shown in Table 1 below, it appears that, for the forecasting horizon, FPL's 2023 TYSP projected a lower growth rate of the Total Average Number of Customers (1.16 percent), compared with the growth rate of the Total Average Number of Customers (1.24 percent) projected in FPL's 2022 TYSP. This 2023 projection results in a 6.4 percent reduction from what was projected in FPL's 2022 TYSP. Please explain why, and specify the major causes and drivers behind these forecasting results.

Tabl	Table 1: FPL's Forecasts of the Total Average Number of Customers										
	2023 TYSP	2022 TYSP		2021 TYSP		2023 TYSP	2022 TYSP				
Year	Schedule 2.3	Schedule 2.3	2023 vs. 2022	Schedule 2.3	2022 vs. 2021	Annual	Annual				
	Column (21)	Column (21)	Forecast	Column (21)	Forecast	Growth Rate	Growth Rate				
	(1)	(2)	(3) = (1) - (2)	(4)	(5) = (2) - (4)	(6)	(7)				
2022		5,769,312		5,717,534	51,778						
2023	5,857,552	5,849,180	8,373	5,785,456	63,723		1.38%				
2024	5,933,291	5,927,728	5,563	5,856,372	71,356	1.29%	1.34%				
2025	6,007,718	6,004,346	3,372	5,924,300	80,047	1.25%	1.29%				
2026	6,080,827	6,079,824	1,002	5,990,248	89,577	1.22%	1.26%				
2027	6,152,580	6,154,797	-2,217	6,056,920	97,878	1.18%	1.23%				
2028	6,223,409	6,228,906	-5,497	6,124,321	104,585	1.15%	1.20%				
2029	6,292,601	6,301,883	-9,282	6,191,640	110,242	1.11%	1.17%				
2030	6,361,450	6,374,242	-12,792	6,258,775	115,467	1.09%	1.15%				
2031	6,429,798	6,446,153	-16,355			1.07%	1.13%				
2032	6,498,576					1.07%					
2022	2022-2031 Growth Rate (based on 2022 TYSP data)										
2023	-2032 Growth R	ate (based on 202	3 TYSP data)			1.16%					
Incre	Incremental Growth Rate (2023 TYSP vs. 2022 TYSP Forecasting Periods)										

b. As shown in Table 2 below, it appears that, for the forecasting horizon, FPL's 2023 TYSP projected a higher growth rate of the Sales to Ultimate Consumers (GWh) (1.24 percent), compared with the growth rate of the Sales to Ultimate Consumers (GWh) (1.13 percent) projected in FPL's 2022 TYSP. This 2023 projection results in a 9.6 percent increase from what was projected in FPL's 2022 TYSP. Please explain why, and specify the major causes and drivers behind these forecasting results.

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]	Table 2: FPL's F	Forecasts of the S	Sales to Ultimat	te Consumers (C	GWh)	
	2023 TYSP	2022 TYSP		2021 TYSP		2023 TYSP	2022 TYSP
Year	Schedule 2.2	Schedule 2.2	2023 vs. 2022	Schedule 2.2	2022 vs. 2021		
	Column (16)	Column (16)	Forecast	Column (16)	Forecast	Growth Rate	Growth Rate
	(1)	(2)	(3) = (1) - (2)	(4)	(5) = (2) - (4)		
2022		122,936		122,233	702		
2023	124,046	124,181	-135	123,131	1,050		1.01%
2024	124,759	125,407	-649	124,136	1,272	0.57%	0.99%
2025	126,306	126,888	-582	125,240	1,648	1.24%	1.18%
2026	127,661	128,102	-441	126,172	1,931	1.07%	0.96%
2027	129,058	129,287	-229	127,404	1,882	1.09%	0.92%
2028	130,807	130,791	16	128,864	1,928	1.36%	1.16%
2029	132,661	132,489	173	130,401	2,088	1.42%	1.30%
2030	134,419	134,143	276	132,045	2,098	1.32%	1.25%
2031	136,326	136,000	326			1.42%	1.38%
2032	138,563					1.64%	
2022-203	31 Growth Rate		1.13%				
2023-203	32 Growth Rate	1.24%					
Incremen	tal Growth Rate	e (2023 TYSP v	rs. 2022 TYSP F	orecasting Peri	iods)	9.6	64%

RESPONSE:

- a. Customer growth for the next 10-year period is forecasted using economic variables such as Total Households, Total Housing Starts, and Non-Ag Employment for Florida from our economic forecast provider S&P Global Market Intelligence (S&P), formerly IHS Markit. The result is that the 2023 TYSP customer growth rate of 1.16% is 0.08% lower than the 2022 TYSP growth rate of 1.24%.
- b. The change in Sales to Ultimate Consumers (GWh) in the 2023 TYSP Forecasting Periods versus the 2022 TYSP forecasting periods is primarily driven by the customer growth and usage by FPL's residential and industrial customers. The result is that the 2023 TYSP growth rate of 1.24% is 0.11% higher than that of the 2022 TYSP growth rate of 1.13%.

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QUESTION:

Referring to FPL's 2023 TYSP, Schedule 2.2, column (16), Sales to Ultimate Consumers, please explain why the Utility forecasted a lower amount of total retail sales (124,046 GWh) for 2023, compared to its 2022 historical amount (126,450 GWh) and projected 2024 amount (124,759 GWh).

RESPONSE:

Please see FPL's response to Staff's Second Data Request, No. 1.

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QUESTION:

Please refer to FPL's responses to Staff's First Data Request, No. 77. Please explain the negative 20 GWh of usage for Residual Oil for FPL System reported for 2022.

RESPONSE:

The negative 20 GWh of usage for Residual Oil for FPL System reported for 2022 in FPL's response to Staff's First Data Request, No. 77, represents a negative net generation value for the Manatee power plant (auxiliary station power was greater than the gross generation). For regulatory reporting purposes, a manual adjustment to allocate auxiliary power to the fuel type, Heavy Oil, was made to ensure that all generation is associated with a fuel type. There was no oil burned for the year, and the net generation of negative 20 GWh is correct.

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QUESTION:

Page 6 of the Company's 2023 TYSP filing states, in part, that "the resource plan . . . [is] based on analysis that assumes that FPL will meet its DSM Goals . . . through the end of 2024." In 2022, FPL only met 1 of 9 of its DSM Goals. Please provide support for this assumption, given the actual results for DSM goal achievement from the most recent period (2022).

RESPONSE:

FPL has consistently utilized its current DSM Goals to project the amount of DSM assumed in the resource plan. The company diligently works to achieve the DSM Goals each year and believes it should continue to use these DSM Goals for resource planning purposes. This projection has not been affected by historical performance towards meeting those DSM Goals.

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QUESTION:

Footnote 3, appearing on page 7 of the Company's 2023 TYSP filing states "Because EVs alter the demand for electricity, utility activities that address EV charging and discharging are also DSM activities." Please state what are the specific utility activities that address EV charging and discharging that the Company defines as "DSM activities," and why.

RESPONSE:

Any program that would allow customers to manage their electric load could be defined as a "DSM activity." As EVs contribute more and more to FPL's electric load, programs that help manage the load resulting from EV charging could potentially be offered as DSM programs. These programs would possibly include managed charging, load control, and rate options to encourage shifting of EV charging load. FPL will evaluate the potential for such programs as part of its 2024 DSM Goals analysis.

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OUESTION:

Page 32 of the Company's 2023 TYSP filing discusses the "next generation of DSM activities."

- a. For each year of the forecasted period (2023-2032), please state the projected quantity of megawatts (increases or decreases) of "next generation of DSM activities" that are incorporated in the values shown in Schedule 3.1, Forecast of Summer Peak Demand, as shown on page 60 of the Company's 2023 TYSP filing.
- b. For each year of the forecasted period (2023-2032), please state the projected quantity of megawatts (increases or decreases) of "next generation of DSM activities" that are incorporated in the values shown in Schedule 3.2, Forecast of Winter Peak Demand, as shown on page 62 of the Company's 2023 TYSP filing.

RESPONSE:

FPL's projections of summer and winter MW from DSM are based on current DSM Goal levels resulting from the 2019 DSM Goals docket. As such, there are no MW impacts from "next generation" DSM activities in FPL's current DSM projections incorporated in Schedules 3.1 and 3.2. The next generation of DSM activities will be included in cost-effective programs that would be evaluated and proposed in FPL's upcoming 2024 DSM Goals docket.

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QUESTION:

Page 59 of the Company's 2023 TYSP filing features Schedule 3.1, History of Summer Peak Demand (MW). Please answer the following:

- a. For the year 2022, Column 6 reflects that in 2022, the cumulative Summer Peak Demand for Residential Load Management decreased by 3 MWs (calculated by subtracting the cumulative 2022 figure of 827 MWs from the cumulative 2021 figure of 830 MWs). Please explain this mathematical result (i.e., how the cumulative amount of Summer Peak Demand from one year (2021) could decline in the next successive year (2022)).
- b. For the year 2022, Column 7 reflects that in 2022, the cumulative Summer Peak Demand for Residential Conservation decreased by 261 MWs (calculated by subtracting the cumulative 2022 figure of 1,613 MWs from the 2021 cumulative figure of 1,874 MWs). Please explain this mathematical result (i.e., how the cumulative amount of Summer Peak Demand from one year (2021) could decline in the next successive year (2022)).
- c. For the year 2022, Column 8 reflects that in 2022, the cumulative Summer Peak Demand for Commercial/Industrial Load Management decreased by 11 MWs (calculated by subtracting the cumulative 2022 figure of 871 MWs from the cumulative 2021 figure of 882 MWs). Please explain this mathematical result (i.e., how the cumulative amount of Summer Peak Demand from one year (2021) could decline in the next successive year (2022)).
- d. For the year 2022, Column 9 reflects that in 2022, the cumulative Summer Peak Demand for Commercial/Industrial Conservation decreased by 224 MWs (calculated by subtracting the cumulative 2022 figure of 966 MWs from the 2021 cumulative figure of 1,190 MWs). Please explain this mathematical result (i.e., how the cumulative amount of Summer Peak Demand from one year (2021) could decline in the next successive year (2022)).

RESPONSE:

- a. The cumulative amount of Residential Load Management for the Summer Peak Demand declined due to how the program operates. The Residential Load Management reported for the 2022 actuals represents the amount of MW available at the time of the Summer Peak. The Residential Load management reduction of 3 MWs is a net of the incremental achievement and attrition experienced in 2022.
- b. The cumulative historical achievements from the Gulf Power programs were mistakenly excluded from the Residential Conservation values in Schedule 3.1. Please see the Second Errata filed on the same date as this response for the updated schedule, which has a correction to account for the increase of 273 MW of historical Gulf Power Conservation in 2022, (shown in red).

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- c. The cumulative amount of Commercial/Industrial Load Management for the Summer Peak Demand declined due to how the program operates. The Commercial/Industrial Load Management reported for the 2022 actuals represents the amount of MW available at the time of the Summer Peak. The Commercial/Industrial Load Management reduction of 11 MWs is a net of the incremental achievement and attrition experienced in 2022.
- d. Please see the response to subpart b. above. The correction will increase, Commercial/Industrial Conservation for 2022 by 235 MW to account for the historical legacy Gulf Power achievements.

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OUESTION:

Page 60 of the Company's 2023 TYSP filing features Schedule 3.1, the 2023-2032 Forecast for Summer Peak Demand (MW). Please answer the following:

- a. Please explain why zero MWs of Summer Peak Demand from Residential Conservation (Column 7) are forecasted for the years 2024 through 2032.
- b. Please explain why zero MWs of Summer Peak Demand from Commercial/Industrial Conservation (Column 9) are forecasted for the years 2024 through 2032.

RESPONSE:

For both Residential Conservation (Column 7) and Commercial/Industrial Conservation (Column 9), zero MWs of Summer/Winter Peak Demand and zero GWh of Annual Net Energy for Load are forecasted for the years 2024 through 2032 because these forecasts are based on FPL's projections in the 2019 DSM Goals docket for then cost-effective DSM levels. Because no residential or commercial/industrial conservation was projected to be cost-effective on FPL's system at the time this analysis was performed, FPL's current projection does not include incremental conservation demand and energy reductions for the 2024 through 2032 time period. FPL will re-evaluate the cost-effectiveness of DSM in the 2024 DSM Goals docket and revise its projections for this time period accordingly.

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QUESTION:

Page 61 of the Company's 2023 TYSP filing features Schedule 3.2, History of Winter Peak Demand (MW). Please answer the following:

- a. For the year 2022, Column 6 reflects that in 2022, the cumulative Winter Peak Demand for Residential Load Management decreased by 8 MWs (calculated by subtracting the cumulative 2022 figure of 681 MWs from the cumulative 2021 figure of 689 MWs). Please explain this mathematical result (i.e., how the cumulative amount of Winter Peak Demand from one year (2021) could decline in the next successive year (2022)).
- b. For the year 2022, Column 7 reflects that in 2022, the cumulative Winter Peak Demand for Residential Conservation decreased by 382 MWs (calculated by subtracting the cumulative 2022 figure of 874 MWs from the 2021 cumulative figure of 1,256 MWs). Please explain this mathematical result (i.e., how the cumulative amount of Winter Peak Demand from one year (2021) could decline in the next successive year (2022)).
- c. For the year 2022, Column 9 reflects that in 2022, the cumulative Winter Peak Demand for Commercial/Industrial Conservation decreased by 174 MWs (calculated by subtracting the cumulative 2022 figure of 406 MWs from the 2021 cumulative figure of 580 MWs). Please explain this mathematical result (i.e., how the cumulative amount of Winter Peak Demand from one year (2021) could decline in the next successive year (2022)).

RESPONSE:

- a. The cumulative amount of Residential Load Management for the Winter Peak Demand declined due to how the program operates. The Residential Load Management reported for the 2022 actuals represents the amount of MW available at the time of the Winter Peak. The Residential Load management reduction of 8 MWs is a net of the incremental achievement and attrition experienced in 2022.
- b. The cumulative historical achievements from the Gulf Power programs were mistakenly excluded from the Residential Conservation values in Schedule 3.2. Please see the Second Errata filed on the same date as this response for the updated schedule, which has a correction to account for the increase of 273 MW of historical Gulf Power Conservation in 2022 (shown in red).
- c. Please see the response to subpart b. above. The correction will increase Commercial/Industrial Conservation for 2022 by 178 MW to account for the historical legacy Gulf Power achievements.

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QUESTION:

Page 62 of the Company's 2023 TYSP filing features Schedule 3.2, the 2023-2032 Forecast for Winter Peak Demand (MW). Please answer the following:

- a. Please explain why zero MWs of Winter Peak Demand from Residential Conservation (Column 7) are forecasted for the years 2024 through 2032.
- b. Please explain why zero MWs of Winter Peak Demand from Commercial/Industrial Conservation (Column 9) are forecasted for the years 2024 through 2032.

RESPONSE:

For an explanation of why zero MWs of Winter Peak Demand from both Residential Conservation and Commercial/Industrial Conservation are forecasted for the years 2024 through 2032, please see FPL's response to Staff's Third Data Request, No. 14.

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QUESTION:

Page 63 of the Company's 2023 TYSP filing features Schedule 3.3, History of Annual Net Energy for Load (GWh). Please answer the following:

- a. For the year 2022, Column 3 reflects that in 2022, the cumulative amount of Residential Conservation decreased by 621 GWh (calculated by subtracting the cumulative 2022 figure of 3,400 GWh from the cumulative 2021 figure of 4,021 GWh). Please explain this mathematical result (i.e., how the cumulative amount of Annual Net Energy for Load from one year (2021) could decline in the next successive year (2022)).
- b. For the year 2022, Column 4 reflects that in 2022, the cumulative amount of Commercial/Industrial Conservation decreased by 421 GWh (calculated by subtracting the cumulative 2022 figure of 2,815 GWh from the 2021 cumulative figure of 3,236 GWh). Please explain this mathematical result (i.e., how the cumulative amount of Annual Net Energy for Load from one year (2021) could decline in the next successive year (2022)).

RESPONSE:

- a. The cumulative historical achievements from the Gulf Power programs were mistakenly excluded from the Residential Conservation values in Schedule 3.3. Please see the Second Errata filed on the same date as this response for the updated schedule, which has a correction to account for the increase of 656 GWh of Gulf Power Conservation in 2022 (shown in red).
- b. Please see the response to subpart a. above. The correction will increase Commercial/Industrial Conservation for 2022 by 438 GWh to account for the historical legacy Gulf Power achievements.

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QUESTION:

Page 64 of the Company's 2023 TYSP filing features Schedule 3.3, the 2023-2032 Forecast for Annual Net Energy for Load (GWh). Please answer the following:

- a. Please explain why zero GWh of Annual Net Energy for Load from Residential Conservation (Column 3) are forecasted for the years 2024 through 2032.
- b. Please explain why zero GWh of Annual Net Energy for Load from Commercial/Industrial Conservation (Column 4) are forecasted for the years 2024 through 2032.

RESPONSE:

For an explanation of why zero GWh of Annual Net Energy for Load from both Residential Conservation and Commercial/Industrial Conservation are forecasted for the years 2024 through 2032, please see FPL's response to Staff's Third Data Request, No. 14.

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QUESTION:

Page 89 of the Company's 2023 TYSP filing states that the Commercial/Industrial Load Control (CILC) program was closed to new participants on December 31, 2000. Please answer the following:

- a. How many participants were enrolled in the CILC program at the time the program was closed to new participants (December 31, 2000)?
- b. How many participants were enrolled in the CILC program at the end of 2022 (as of December 31, 2022)?
- c. Since this program is currently closed to new participants, what assumptions has FPL made regarding the number of participants that will remain enrolled in this program for the forecasted years of 2023 through 2032?

RESPONSE:

- a. 462 CILC program participants were enrolled in the program when it was closed on December 31, 2000.
- b. 324 CILC program participants were enrolled in the program as of December 31, 2022.
- c. The forecasted years 2023 2032 assume no attrition from the prior year participant count of 324 on December 31, 2022.

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QUESTION:

Please refer to FPL's 2023 TYSP, Schedule 2.3, column (21), Total Average Number of Consumers. It appears that FPL's total average number of customers is anticipated to grow at an average annual rate of about 1.16 percent for the next 10-year period, compared to the 1.47 percent actual annual increase experienced during the 2013-2022 period. Please explain the major cause(s) for this projected reduction in the rate of growth of total average number of customers.

RESPONSE:

The customer growth rate of 1.47 percent during the 2013-2022 period included the impacts of accelerated customer growth after the Great Recession, an increase in the number of active customers associated with a concurrent decrease in the number of unknown usage accounts (UKU), and the acquisition of the electric utility customers previously served by the City of Vero Beach. These factors, which are not present in the forecasted period, resulted in higher customer growth rates during the 2013-2022 historical period.

A UKU premise is a location where electricity is being consumed without an active customer account. Beginning in the second half of 2013, FPL began using the Automated Metering Infrastructure (AMI or smart meter) technology to reduce the number of UKU premises, and this initiative resulted in an increase in the number of active accounts or customers.